

Amendments to the Claims:

1. (currently amended) A method for wireless communication initiation ~~for~~ implemented in a wireless transmit/receive unit (WTRU) configured to communicate with base stations of a wireless system where the WTRU receives an identifying synchronization channel (SCH) signal from at least one base station at a predetermined chip rate in a selected portion of a system time frame, comprising:

receiving a wireless signal including at least one SCH signal, wherein the SCH signal has been transmitted in a predetermined timeslot of a system time frame and includes a primary synchronization code (PSC) transmitted in the timeslot at a predetermined chip offset wherein the decoding includes determining a t_{offset} at which the selected SCH is transmitted;

identifying received SCH signals using a power threshold based on a plurality of chip samples sampled at twice the chip rate;

selecting an identified SCH signal for decoding; ~~and~~

decoding the selected SCH signal to determine system time frame timing and base station identity by determining a beginning of the SCH signal by identifying a chip location having a highest signal to noise ratio wherein the noise is computed using a predetermined number of chips that is less than the total number of chips in a frame[.]; and

identifying whether the chip location of the PSC sequence was derived from an even sample or an odd sample where the PSC sequence is identified by processing a wireless communication signal at twice the chip rate.

2. (canceled)

3. (currently amended) The method of claim [[2]] 1 wherein the PSC having the highest power is detected by summing the peak PSC over four frames and dividing the summed power by an estimated noise value to obtain an signal to noise ratio for each chip in a frame.

4. (currently amended) The method of claim [[2]] 1 wherein the chip with the highest signal to noise ratio is selected to obtain the location of the PSC sequence.

5. (original) The method of claim 4 wherein the location of the PSC sequence is adjusted to identify the chip location at which the PSC sequence begins.

6. (original) The method of claim 3 wherein the step of dividing is not implemented where the signal value is less than the threshold value.

7 – 15. (cancelled)

16. (currently amended) A wireless transmit/receive unit (WTRU) configured to communicate with base stations of a wireless system where the WTRU ~~receives~~ has received an identifying synchronization channel (SCH) from at least one base station in a selected portion of a system time frame, ~~the~~ comprising:

a receiver configured to receive a wireless signal including at least one SCH signal, wherein the SCH signal has been transmitted in a predetermined timeslot of a system time frame and includes a primary synchronization code (PSC) transmitted in the timeslot at a predetermined chip offset wherein the decoding includes determining a t_{offset} at which the selected SCH is transmitted;

at least one correlator configured to identify received SCH signals using a power threshold based on a plurality of chip samples sampled at twice the chip rate;

a processor configured to select an identified SCH signal for decoding; ~~and~~

a processor configured to decode the selected SCH signal to determine system time frame timing and base station identity by determining a beginning of the SCH signal by identifying a chip location having a highest signal to noise ratio wherein the noise is computed using a predetermined number of chips that is less than the total number of chips in a frame[.]; and

Applicant: Demir et al.
Application No.: 10/772,644

circuitry configured to identify whether the chip location of the PSC sequence was derived from an even sample or an odd sample where the PSC sequence is identified by processing a wireless communication signal at twice the chip rate.